

REMARKS

Claim 8, 13, 14 and 20 have been amended.

No Claims have been cancelled by this amendment.

Claims 1, 5-16, and 18-24 are currently pending in this application.

Claims 1, 8, 13, 14 and 20 are in independent format.

1. Rejections Under 35 U.S.C. § 101

The Examiner's rejection of Claims 14-16 and 18-19 under 35 U.S.C. § 101 as being directed to non-statutory subject matter is respectfully traversed. The Examiner's stated basis for the rejection is that the claims fail to produce any tangible results, as the information determined by the method is not conveyed to a user.

Independent Claim 14 has been amended to require the step of generating an output signal representative of a speed of the target object utilizing the calculated phase shift. As such, independent Claim 14 is now believed to produce a tangible result (i.e. the generation of an output signal which can be subsequently utilized for storage, additional processing, or display to a user), and is directed toward statutory subject matter under 35 U.S.C. § 101. Dependent Claims 15-16 and 18-19 are now believed to be directed towards statutory subject matter for the same reason as Claim 14.

2. Rejections Under 35 U.S.C. § 102(b)

The rejection of Claims 1, 6-7, and 10-12 under 35 U.S.C. § 102(b) as being anticipated by U.S. Published Application No. 2001/0046042 to *Theille et al.* is respectfully traversed.

The MPEP §2131 provides:

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference.” *Verdegall Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as contained in the ... claim” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 9 USQP2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim.

Contrary to the Examiner’s statements that all elements of independent Claim 1 are disclose within the ‘042 *Theile et al.* published application, the limitations of first and second *differential* speed sensors units, configured to generate first and second *differential signals*, together with a signal processor configured to receive first and second *differential signals*, is not disclosed.

The ‘042 *Theile et al.* published application discloses sensors (2) which provide signals which are directly representative of random surface features passing beneath the sensors. (Para. [0031]). These two directly-representative signals are then passed to a processor in the form of a delay correlator (6) which forms a closed control loop for determining the time shift between the substantially identical signals emitted by the sensors (2). (Para. [0032]).

The ‘042 *Theile et al.* published application fails to disclose first and second *differential* speed sensors units, configured to generate first and second *differential signals*, together with a signal processor configured to receive first and second *differential signals* and to apply a cross-correlation analysis to determine a phase shift between the first and second *differential* signals. Accordingly, the rejection of Claim 1

and dependent Claims 6-7 and 10-12 under 35 U.S.C. § 102(b) is unsupported by the '042 *Theile et al.* published application, and should be withdrawn.

3. Rejections Under 35 U.S.C. § 103(a)

The Examiner's rejection of Claim 5 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Published Application No. 2001/0046042 A1 to *Theile et al.* in view of U.S. Published Application No. 2003/0052685 A1 to *Nelson et al.* is respectfully traversed. The Examiner's stated basis for the rejection is that with respect to Claim 5, the '042 *Theile et al.* published application teaches everything as claimed, with the exception of the use of an eddy current sensors. The Examiner contends the use of an eddy current sensor is well know as taught by the '685 *Nelson et al.* published application, and as such, it would have been obvious to utilize an eddy current sensor with the speed sensor system of *Theile et al.*

As discussed above with respect to the rejections under 35 U.S.C. § 102, the '042 *Theile et al.* published application fails to disclose first and second *differential* speed sensors units, configured to generate first and second *differential signals*, together with a signal processor configured to receive first and second *differential signals* and to apply a cross-correlation analysis to determine a phase shift between the first and second *differential* signals. The '685 *Nelson et al.* published application, merely discloses the use of an eddy current sensor, and fails to teach or suggest the use of sensor unit which generate first and second *differential signals*, or the subsequent processing of *differential signals*. Hence, the combination of the teachings of the '685 *Nelson et al.* published application with the teachings of the '042 *Theile et al.* published

application fails to render obvious under 35 U.S.C. § 103(a) the claimed invention as set forth in Claim 5, as the combination lacks the limitations of Claim 5.

4. Claim Objections

The Examiner has noted that Claims 8-9, 13, and 20-24 are dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 8, 13, and 20 have been amended to be in independent form by incorporating all of the limitations of parent Claim 1, from which they depended. Claims 9 and 21-24 now depend from allowable independent claims, and accordingly, are allowable for the same reasons as their respective parent claims without further amendment.

5. Conclusion

Based on the foregoing, the allowance of all pending claims is requested.

If for any reason the Examiner is unable to allow the application on the next Office Action and feels that an interview would be helpful to resolve any remaining issues, the Examiner is respectfully requested to contact the undersigned attorney for the purpose of arranging such an interview.

Respectfully submitted,



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